

Sterilight
WATERTM
Machine

Point-of-Use Drinking Water System

OWNERS MANUAL





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Congratulations on the purchase of your new Sterilight Point-of-Use Drinking Water System. This unit is designed to operate for years with minimal maintenance. If you have any questions regarding the operation of the unit, these instructions, or how to obtain service on the unit, please contact your local Sterilight dealer, or contact Sterilight at www.r-can.com.

⚠ This symbol is used throughout this manual to notify you of particularly important information.

STERILIGHT UNIT USE RESTRICTIONS

Your Sterilight Unit is designed to improve the taste and quality of otherwise potable, optically clear municipal or well water. The patented Sterilight treatment system also provides an environment that is inherently hostile to certain microbiological contaminants. Please note the following use restrictions:

1. Water entering the unit must be free of sediment and loose scale or rust. If your water does not meet these requirements, it must be pre-filtered prior to entering the unit.
2. For optimum performance, the unit must be monitored for proper operation each time it is used. Proper operation is described on page 6 of this manual.

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UNPACKING & INSPECTION

Before proceeding with installation of your Sterilight Unit, please carefully unpack and inspect it. Figure 1 illustrates all the major components of the system, shown with the standard faucet diverter (your unit may vary slightly from photo). If anything appears to be broken or missing, please contact your Sterilight dealer.

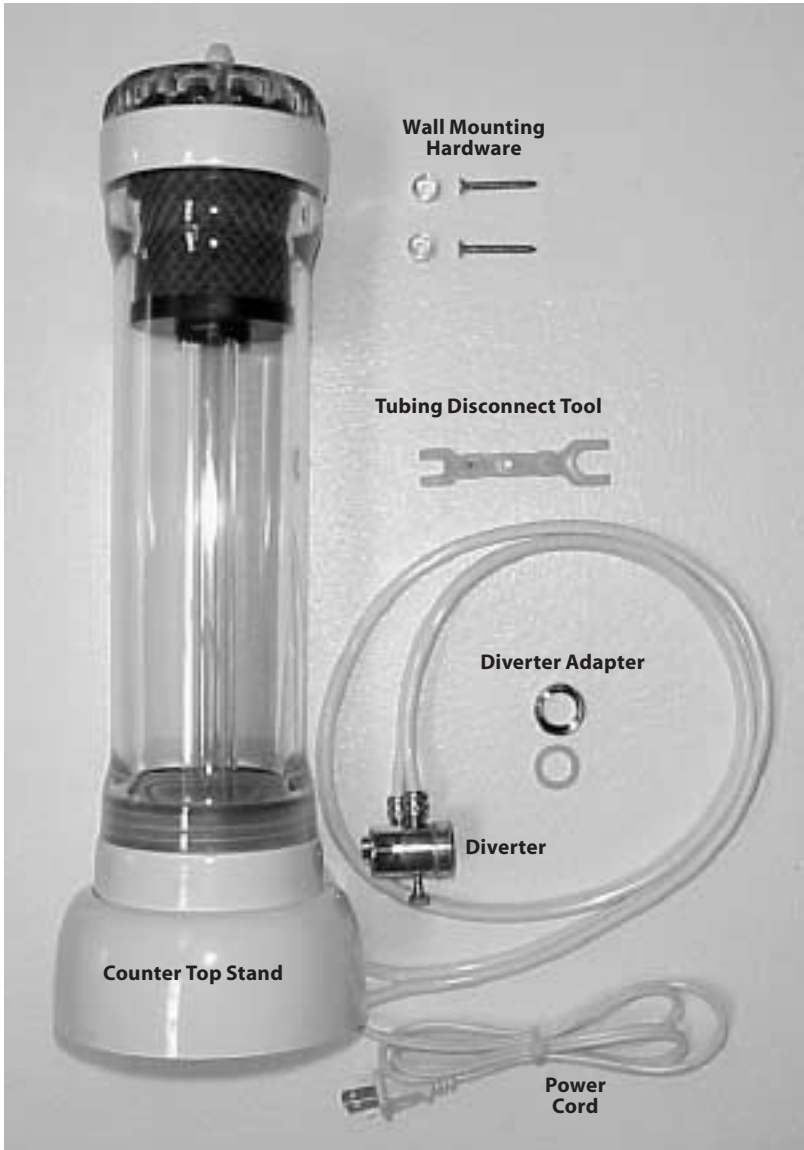


Figure 1
Unit inspection

INSTALLATION

Shipped with the faucet diverter, your Sterilight unit is ready for installation on most kitchen faucet heads.

A. STAND MOUNTING:

Find a suitable location for your unit, and simply place it with the stand provided. Excess hose and/or power cord may be wrapped inside the unit's stand (Figure 2).



Figure 2
Counter-top stand mounting

B. WALL MOUNTING

1. To wall mount the unit, you must first remove the counter-top stand. This stand is secured to the unit with two semi-permanent adhesive pads. They can be pried loose by pulling firmly down on the back of the stand or by using a screwdriver or lever to pry the stand from the bottom of the unit (Figure 3). Once the stand is removed, the adhesive pads can be peeled off from the stand and/or bottom of the unit (Figure 4).



Figure 3
Counter-top stand removal



Figure 4
Adhesive pad removal

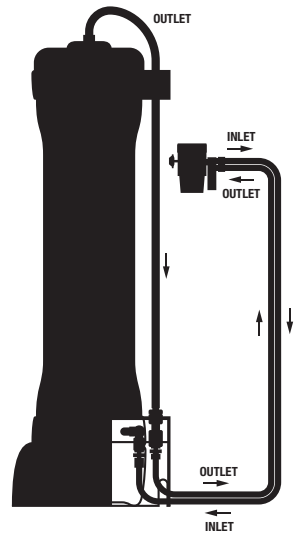


Figure 5
Diverter valve hose routing

The adhesive pads are not required for the stand to function.

⚠ The Diverter valve hoses attach (Figure 5), with the hose to the top of the diverter attaching to the inlet elbow, and the hose to the bottom of the diverter attaching to the outlet tube.

2. Locate a solid mounting surface (such as a wall stud). Attach the mounting hardware (Figure 7) and the unit (Figure 8).

⚠ The Sterilight unit generates ozone from surrounding air. Locate the unit in an area where the air is breathable and free from dust or fumes. The unit MUST be mounted vertically, with the filter at the TOP of the unit.



Figure 6
Separating stand from unit



Figure 7
Mounting Pin Installation



Figure 8
Hanging unit on Wall
Mounting Pins

C. CONNECTING TO THE FAUCET

1. To connect to an existing faucet, remove the existing aeration nozzle and gasket (Figure 9).



Figure 9
Removing aeration
nozzle and gasket

2. If the diverter supplied with the unit will not attach directly to your faucet, install the adapter. When done, or if the adapter is not needed, connect the Sterilight unit diverter valve assembly to the faucet (Figure 10).
3. Plug the power supply into an available outlet.

⚠ The outlet *MUST* always have power available. Do not plug the unit into an outlet that can be switched on or off.

The unit is now ready for operation.

OPERATION

⚠ Prior to drinking water from the unit, flush unit for five minutes.

To operate the unit, simply turn on the cold water faucet and pull the diverter valve plunger outward (Figure 11). To bypass the unit, push the diverter valve inward.

You will observe the following when the Sterilight unit is operating properly:

1. Once flow is established, the UV lamp will turn on and become fully bright and steady within the first second of operation.
2. Water enters the unit at the bottom where it is mixed with ozone, forming a Sterilight of swirling bubbles and a swooshing sound.
3. Any ozone left following the patented ozone/UV photo-oxidation process is reconverted to oxygen in the filter element. Water leaving the unit is fully treated and mixed with air and the reconverted ozone. The air will appear as tiny bubbles, sometimes giving the water an initial cloudy appearance. After sitting for a minute or so, all of the bubbles will rise to the surface and disperse, leaving the water crystal clear.
4. Because of the trapped air, the water outlet from the unit will occasionally sputter, particularly at start-up.



*Figure 10
Attaching diverter
to Faucet*



*Figure 11
Turn on the faucet by pulling
the diverter valve flow
control knob outward.
The unit will automatically
come on.*

⚠ PLEASE NOTE THE FOLLOWING

- 1. The Sterilight unit is NOT designed to operate with hot water. Run only cool tap water through the unit.**
2. The ultraviolet lamp in the unit has a useful life of 10,000 on-off cycles or more. One cycle could be a small cup of water or a large pitcher. To maximize the life of the lamp, it is best to get a pitcher to store in the refrigerator for drinking during the day, as opposed to running it several times to draw individual glasses of water.
3. Depending on the model, your Sterilight ultraviolet lamp may stay illuminated for approximately 30 seconds after flow through the unit has ceased. This is normal and is not cause for concern.

REPLACING THE FILTER

The filter element in the Sterilight unit is a high-performance, multi-layer extruded design. The element has been specifically designed to complement the patented ozone/UV photo-oxidation process. Replacement filters can be obtained through your Sterilight dealer.

⚠ The unit MUST NOT be operated without a filter element except when sanitizing (page 8).



*Figure 12
Removing Tubing
from fittings*

Replace the filter whenever:

1. The filter has been in service six or more months.
2. 1900 or more liters of water (500 gallons) have been processed by the unit.
3. The filter shows signs of dirt build-up or deterioration, evidenced by a decrease in the rate of water flow, or a decrease in the swirling bubble action.

⚠ It is EXTREMELY IMPORTANT that the unit be unplugged. The Sterilight unit contains a high intensity ultraviolet lamp that can damage tissues in the eye. The UV wavelengths cannot travel through the plastic housing. However, removing the filter requires that the cap be removed, exposing the lamp. DO NOT PROCEED WITHOUT UNPLUGGING THE UNIT!

⚠ The Sterilight unit uses state-of-the-art Speed Fit® fittings. They rely on a lock ring to hold the tubing in place. To remove tubing from the fitting, hold the lock ring against the fitting while pulling on the tubing. While it is possible to do this with your fingers, included with your Sterilight unit is a tubing disconnect tool to make removing the fittings easier (Figure 12).

⚠ For the filter to be removed, the filter element must be saturated with water and all internal seals must be wet. DO NOT ATTEMPT TO REMOVE A FILTER ELEMENT THAT IS NOT WET. Doing so may result in breakage of the glass sleeve or lamp, and could result in personal injury.

1. Disconnect unit from power source.
2. Run water through the unit to insure that the filter is saturated and all seals are wet.
3. Remove the unit from its wall mount (if wall mounted)
4. Grasp the unit firmly and unscrew the cap by turning counterclockwise (Figure 13).
5. Once the cap is completely unscrewed, use the tubing disconnect tool to disconnect the outlet tube (Figure 14).
6. With the outlet tube disconnected, lift the cap and filter out of the unit. It is not unusual for the O-ring at the bottom of the filter to stay on the glass sleeve (Figure 15).
7. Reach in and remove the lower filter O-ring seal as shown (Figure 16).
8. **Sanitize the unit prior to installing the new filter.** To do this, reinstall the cap (without the filter installed), reconnect the diverter outlet tubing and replace the unit on its mount or stand. Reconnect power and run water through the unit for approximately 5 minutes. Without a filter cartridge in the unit, some ozone remains in the outlet water, sanitizing the upper portion of the unit and the outlet lines.

⚠ DO NOT DRINK water that has been run through the unit without a filter.

9. Disconnect power and remove the cap as in steps 3, 4 and 5 above.
10. To insure that the lower filter seal will slide easily into the unit, wet the glass sleeve (Figure 17).
11. The upper (large) seal fits into the top



Figure 13
Disconnecting outlet tube



Figure 14
Disconnecting outlet tube



Figure 15—Unscrewing cap
and removing filter



Figure 16
Removing lower O-ring



Figure 17
Wet glass sleeve



Figure 18
Installing the filter into the cap

- cap. Push it firmly into the cap until it is completely seated (Figure 18). The filter should stay firmly in the to cap.
12. Ensure that the lower filter O-ring seal is in place (Figure 19).



Figure 19
Checking lower O-ring seal

13. The lower seal slides over the glass sleeve in the unit. Ensure that the glass sleeve is wet, and guide the filter over the sleeve (Figure 20).



Figure 20
Installing the filter in the unit

Be sure to guide the outlet tube into the bottom fitting.

14. Tighten the cap and reconnect all fittings. Reconnect power.
15. Run water through the unit for 5 minutes to flush the filter before use.

⚠ IMPORTANT! Use only filters supplied by your Sterilight dealer. Approved filters are specifically matched to your unit. Using the wrong filter will negatively effect unit operation, will void the unit warranty, and can adversely affect the safety of water leaving the unit.

REPLACING THE UV LAMP

The Sterilight unit uses a high-intensity ozone generating lamp which can be obtained from your Sterilight dealer. For proper unit operation, use only lamps supplied by your Sterilight dealer. The lamp should be replaced whenever it fails to light during operation.



Figure 21—Draining the Unit



Figure 22

Removing cover retaining screws



Figure 23 (Internal Power Supply)
Removal of Single Socket
lamp Connection



Figure 24 (External Power Supply)



Figure 25 (External Power Supply)
Loosening lamp retention screw

⚠ It is EXTREMELY IMPORTANT that the unit be unplugged before servicing. The Sterilight Point-of-use unit contains a high intensity ultraviolet lamp that can damage tissues in the eye. The UV wavelengths cannot travel through the plastic housing. However, the lamp will be exposed during removal and replacement. In addition, it is possible to encounter hazardous electrical energy when removing the protective bottom cover. DO NOT PROCEED WITHOUT UNPLUGGING THE UNIT!

1. Disconnect unit from power source.
2. Remove the unit from its wall mounting, remove the filter, drain the water from the unit (Figure 21), and lay it down horizontally.
3. Using a Phillips-head screwdriver, remove the retaining screws on the cover located at the bottom of the unit (Figure 22) and carefully slide the cover off of the unit .
4. Disconnect the lamp wires.

⚠ NOTE: Depending on model, your unit may have an internal or external power supply. Units with an internal power supply appear as in Figure 23. Units with an external power supply appear as in Figure 24.



Figure 26 (Internal Power Supply)
Removing lamp



Figure 27 (External Power Supply)
Removing lamp

5. Loosen the lamp retention screw (External Power supply units–Figure 26).
6. Slide the lamp out carefully (Figures 26 and 27).
7. Insert the new lamp in the sleeve and reinstall the lamp.
8. Reinstall lamp wiring and the bottom cover.
9. Reinstall the filter as provided in the filter replacement instructions (see page 7).
10. Reconnect power.

The unit is now ready for operation.

TROUBLESHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSE	POSSIBLE SOLUTION
Unit leaking at tubing connection(s) after unit has been serviced.	Tubing not securely connected and/or tubing lock ring not secured over tubing fitting.	Verify that tubing is properly connected and that the lock ring is engaged.
Unit leaks around top cap after filter has been replaced.	O-ring on top is not properly seated.	Verify O-ring is seated.
Water is flowing from the unit at a very slow rate.	Filter element plugged. Diverter screen plugged. Inlet plugged.	Replace filter. Remove diverter valve from the faucet and clean the screen. Reverse flow to unit temporarily to remove blockage. This can be done by temporarily reversing inlet and outlet fittings.
Lamp does not light when unit is operated.	No power. Lamp burned out.	Make sure power is available. Replace lamp.
No bubbles are visible in the incoming stream.	Filter is exhausted.	Replace Filter.
After removing unit for service, no bubbles are visible in unit when running.	Inlet and outlet tubing has been reversed, causing reverse flow through the unit.	Reverse tubing connections.
Unit is mounted above counter with diverted valve assembly attached to the sink and partially drains when not in use.	Diverted valve not fully closing when water is turned off.	Push diverted valve in when unit is not in use.

REPLACEABLE PARTS LIST

Your Sterilight Point-of-Use treatment system has very few user-serviceable parts:

Filter Cartridge.....	SWM-C1
Filter Cap O-ring.....	OR-SWM
Lamp Assembly.....	SWM-RL
Quartz Sleeve.....	QS-SWM

PARTS & SERVICE: Contact your Sterilight dealer.

SWM SPECIFICATIONS

Power requirements:	SWM1, 115V AC, 20 WATTS SWM1/2, 220V AC, 20 WATTS
Flow rate:	Up to 2 lpm (0.5 gpm)
Minimum inlet pressure:	30 PSIG
Maximum operating pressure:	6.9 bar (100 PSIG)
Filter life:	6 months or 1900 liters (500 gallons)
Lamp life:	10,000+ on/off cycles
Weight:	Approximately 2.2 kg. (5 lbs.)
Dimensions:	Approximately 150 x 445 mm (5.9 x 17.5 inches)
Chemical additives:	None; (ozone created in unit)
Chemical emissions:	None; (ozone reconverted to oxygen in the filter cartridge element)



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